

REMARKS*Brief Summary of the Present Invention*

In the Official Action dated August 10, 1999, claims 2, 6-8, 10 and 11 were rejected and claims 1, 3-5, 9, and 12 were withdrawn from consideration. In the present Amendment, claims 1, 3-5, 9, and 12 have been cancelled, without prejudice, as drawn to the non-elected invention; claims 2, 6, 7, 10 and 11 have been amended; and claims 13-20 have been added. Thus, claims 2, 6-8, and 10, 11, and 13-20 are pending. The amendments to the existing claims and newly added claims 13-20 are supported in the specification and, thus, no new matter is added.

Rejections Under 35 U.S.C. § 112(2)

Claims 2, 6-8, 10 and 11 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Official Action states that claim 2 is vague and indefinite because the specific algorithm used to calculate "95% identity" is not disclosed in the specification. Applicants have amended claim 2 to recite a specific algorithm, as described in the specification at page 20, lines 6-24.

The Official Action states that the recitation of "a polynucleotide sequence encoding" is vague and indefinite. Applicants have amended claim 2 to recite "a nucleotide sequence which encodes" as suggested by the Examiner.

The Official Action states that the recitation in claim 2 of "stringent conditions", "complementary", and "the RNA equivalent of a polynucleotide of (I) to (vi)" is vague and indefinite. Applicants have deleted these term/phrases from claim 2, rendering this rejection moot.

A

The Official Action states that claim 2 is not written in proper Markush form. Applicants have amended claim 2 such that claim 2 is no longer in Markush form.

The Official Action states that claim 6 refers to a non-elected claim. Applicants have amended claim 6 to independent form, as suggested by the Examiner.

The Official Action states that the recitation of "capable of" in claim 6 is vague and indefinite. Applicants have amended claim 6 to recite "which produces", as suggested by the Examiner.

The Official Action states that claim 11 is vague and indefinite because the specific algorithm used to calculate "95% identity" is not disclosed in the specification. Applicants have amended claim 11 to recite a specific algorithm, as described in the specification at page 20, lines 6-24.

The Official Action states that the word "isolated" should be inserted after "(c)" in claim 11. Applicants have deleted part (c) from claim 11, rendering this rejection of claim 11 moot.

The Official Action states that the recitation of "a nucleotide sequence encoding" is vague and indefinite. Applicants have amended claim 11 to recite "a nucleotide sequence which encodes" as suggested by the Examiner.

The Official Action states that claim 11 is not written in proper Markush form. Applicants have amended claim 11 such that claim 11 is no longer in Markush form. Accordingly, withdrawal of these rejections is requested.

Rejections Under 35 U.S.C. § 112(1)

Claims 2, 6-8, 10, and 11 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in

A

such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The Official Action states that the specification does not provide enablement for: polynucleotides comprising a polynucleotide sequence encoding a polypeptide sequence that has at least 95% identity to the polypeptide of SEQ ID NO:2; polynucleotides comprising a polynucleotide sequence which has at least 95% identity to that of SEQ ID NO: 1; polynucleotides comprising a nucleotide sequence which has at least 95% identity to SEQ ID NO:3; and polynucleotides comprising a nucleotide sequence encoding a polypeptide which has at least 95% identity to the amino acid sequence of SEQ ID NO:4. More specifically, the Official Action states that it is unclear to one skilled in the art what sequences are embraced by a claim which is based on a specification which lacks the algorithm and parameters used to determine percent identity.

Applicants traverse this rejection to the extent that it applies to claims 2, 6-8, 10, and 11, as amended. As stated in addressing the § 112, second paragraph, rejection, claims 2 and 11 have been amended to recite a specific algorithm. Applicants submit that claims 2, 6-8, 10, and 11 are enabled by the specification. It is well within the skill of ordinary workers in this art to determine, without undue experimentation, the claimed subject matter of claims 2, 6-8, 10, and 11.

The Official Action states that claims 6-8 and 10 are drawn to expression vectors and host cells for producing a polypeptide, but that not all of the polynucleotides recited in claim 2, from which original claim 6 depended, have the ability to produce a polypeptide. Applicants have amended claim 6 to independent form. Accordingly, withdrawal of these rejections is requested.

Newly Added Claims

Claims 13-20 have been added to cover additional aspects of Applicants' invention. Claim 13 is directed to an isolated polynucleotide which encodes a

A

polypeptide comprising the amino acid sequence of SEQ ID NO:2. Claim 13 is supported by originally filed claim 2.

Claims 14 and 15 are directed to the isolated polynucleotides which are RNA or DNA, respectively, and which are at least 95% identical to a nucleotide sequence which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2. Claims 14 and 15 are supported by originally filed claim 2 and in the specification at page 17, lines 12-13.

Claim 16 is directed to an isolated polynucleotide comprising the nucleotide sequence of SEQ ID NO:3. Claim 16 is supported by originally filed claim 11.

Claim 17 is directed to an isolated polynucleotide comprising a polynucleotide sequence that has at least 95% identity to the nucleotide sequence of SEQ ID NO:1. Claim 17 is supported by originally filed claim 2.

Claim 18 is directed to an isolated polynucleotide comprising the nucleotide sequence of SEQ ID NO:1. Claim 18 is supported by originally filed claim 2.

Claim 19 is directed to an isolated polynucleotide that is fully complementary to an isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:2. Claim 19 is supported by originally filed claim 2.

Claim 20 is directed to an isolated polynucleotide obtained by screening a library under stringent hybridization conditions with a probe comprising a nucleotide sequence which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein said polynucleotide obtained comprises at least 50 nucleotide bases. Claim 20 is supported by originally filed claim 2 and in the specification from page 5, line 24, through page 6, line 10. No new matter has been added by the addition of claims 13-20.

A

Rejections Under 35 U.S.C. § 102

Claim 2 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Boehringer Mannheim Biochemicals (1991 Catalog, page 557), Stratagene (1991 Product Catalog, page 66), Gibco BRL (Catalogue & Reference Guide 1992, page 292), Promega (1993/94 Catalog, pages 90-91) or New England Biolabs (Catalog 1986/1987, pages 60-62). The Official Action states that claim 2, part (vi) does not limit the size of the hybridizing strands and, therefore, that claim 2 covers oligonucleotides, such as probes, primers, and linkers. Applicants have cancelled part (vi) of claim 2, rendering this rejection of claim 2 moot.

Claim 2 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Ensser et al. (GenBank Accession No. AF030698, submitted October 21, 1997).

Applicants traverse this rejection and submit that this § 102(b) rejection of claim 2 is improper. In a discussion with the National Center for Biotechnology Information (NCBI), the NCBI indicated that GenBank Accession No. AF030698 was first available to the public on or about September 4, 1998. In contrast, Applicants' patent application was filed January 29, 1999, claiming the benefit of priority of EP 98300694.1 filed January 30, 1998. Thus, GenBank Accession No. AF030698 was not available to the public more than one year prior to the date of Applicants' application for patent in the United States. Accordingly, Applicants submit that claim 2 is not anticipated under § 102(b) by Ensser et al. Withdrawal of these rejections is requested.

A


Summary

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance and respectfully request early and favorable notification to that effect. If it would expedite prosecution of this application, the Examiner is invited to confer with Paul D. Golian or Applicants' other undersigned attorney.

Applicants reserve the right to prosecute, in one or more divisional or continuation applications, the claims as originally filed, the cancelled claims, and any other claims supported by the specification.

Respectfully Submitted,

RATNER & PRESTIA



Robert L. Andersen, Reg. No. 25,771
Paul D. Golian, Reg. No. 42,591
Attorneys for Applicants

PDG/zlm

Dated: November 10, 1999

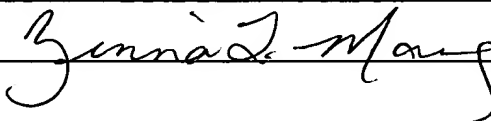
Suite 301
One Westlakes, Berwyn
P.O. Box 980
Valley Forge, PA 19482-0980
(610) 407-0700



The Assistant Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. 19-2387 of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on

November 10, 1999



A